

Blue Water Bridge Plaza Study

MDOT J.N. 57779

Technical Memorandum Project Area Contamination Survey Report

Prepared for:

The Michigan Department of Transportation

Submitted by:

Soil and Materials Engineers, Inc.

and

Wilbur Smith Associates

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1.0 SUMMARY

The findings of our Study Area Contamination Survey of the Blue Water Bridge Plaza Study in St. Clair County, Michigan are summarized as follows:

At the time of SME's walkover, the Study Area consisted predominately of commercial businesses and residential. The Study Area is defined as: the parcels east of 17th Avenue and 15th Avenue, parcels south of Riverview Street and west of 10th Avenue, and north of Mansfield Street. Additionally, the Study area includes the parcels south of Church Street, north of Harker Street, west of Stone and Cherry Streets, and between Elmwood and State Street along the eastern portion of the Study Area. SME observed no evidence of pits, ponds, or lagoons. SME observed four operating gas stations, two car dealerships with maintenance garages, a former truck stop, and an on-site, one-hour dry cleaner, which represent Recognized Environmental Conditions (RECs) in connection with the Study Area. SME also observed a hazardous waste storage area on the Blue Water Bridge Plaza and through discussion with Mr. Morris Hall, the Blue Water Bridge Department Manager, determined that the UST has not been used. SME does not consider the hazardous waste storage area a REC in connection with the Study Area.

As part of the walkover, SME did not access buildings, except for the buildings on the Blue Water Bridge Plaza and the Michigan Department of Transportation (MDOT) Transportation Service Center (TSC) building. The buildings present within the Study Area may contain asbestos and lead-containing paint. In addition, building records should be researched for evidence of current or historical underground heating oil tanks.

Historical information reviewed during SME's Hazardous Waste Study, indicated the Study Area consisted of predominately commercial and residential buildings from at least the mid 1950's to the present. Prior to the mid 1950's, commercial and residential buildings were within the Study Area, but the area did not appear heavily developed. Adjoining the commercial and residential buildings was vacant wooded and agricultural land. Historical information identified: nine former gas stations located within the Study Area; five auto dealerships; a coal yard with an associated railroad spur; an electrical Substation Transit; a warehouse/manufacturing building for machined parts for automobiles; and sheet metal contracting with an associated railroad spur. Historical use information was gathered through review of aerial photographs, local street directories and Sanborn Fire Insurance Maps. SME considers the historical presence of these operations Recognized Environmental Conditions (RECs) in connection with the Study Area.

SME reviewed regulatory database lists of sites of environmental concern. SME identified three open LUST sites, six closed LUST sites, six active UST sites, five closed UST sites, and three RCRA Generator sites within the Study Area. The identified sites represent RECs in connection with the Study Area.

According to the city of Port Huron, the residential houses and commercial buildings are connected to municipal sewer and water services. Natural gas is used to heat the buildings, and has been available to the area at least since the 1960s.

2.0 INTRODUCTION

Soil and Materials Engineers, Inc. was subcontracted by Wilbur Smith and Associates on August 22, 2002 to complete a Hazardous Waste Study for preliminary alternatives for expanding the Blue Water Bridge Plaza and relocating additional streets to accommodate the Plaza expansion in Port Huron, Saint Clair County, Michigan. The preliminary expansion area includes: the parcels east of 17th Avenue and 15th Avenue, parcels south of Riverview Street and west of 10th Avenue, and north of Mansfield Street. Additionally, the expansion area includes the parcels south of Church Street, north of Harker Street, west of Stone and Cherry Streets, and between Elmwood and State Street. This is referred to as the "Study Area".

The scope of services for this project was conducted in general accordance with the ASTM Standard on Environmental Site Assessments for Commercial Real Estate designation E 1527-00, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," and SME's Proposal dated March 29, 2002. The purpose of the study was to identify Recognized Environmental Conditions (RECs) within the preliminary alternatives to the expansion of the Blue Water Bridge and relocating roads for the Blue Water Bridge Plaza, and to assess the relative significance of the identified RECs.

The scope of services completed included a walkover of the proposed alternatives, a regulatory database search of the area, as specified by ASTM E 1527-00, a review of historical aerial photographs, city directories and Sanborn Fire Insurance Maps, and discussions with local officials and individuals with knowledge of the sites within the Study Area. Buildings were not entered, except for the buildings located on the Plaza and the Michigan Department of Transportation (MDOT) Transportation Service Center (TSC) building, as part of the Hazardous Waste Study.

3.0 PROJECT AREA CONTAMINATION SURVEY

3.1 Setting / Layout

SME's Study Area included assessing land east of I-94 and a vacant parcel west of I-94; land south of Hancock Street and west of 10th Avenue; and north of Mansfield Street. The preliminary expansion alternatives covered approximately 100-acres of land. With the exception of a vacant parcel just west of I-94, which was approximately 4-acres of wooded land. The Study Area is attached and labeled as **Figure 1**.

3.2 Walkover

On October 22, 2002, Ms. Caryn E. Carscadden of SME conducted an observational walkover of the preliminary expansion alternatives and recorded site conditions, features, and RECs observed. Limitations encountered during SME's walkover included areas unable to be viewed due to dense vegetation, highway structures, and buildings. In general, the project area was commercial and residential land.

During the walkover, SME observed for RECs. Identified RECs are described in the following sections.

3.2.1 Chemical Use and Storage

SME did not observe the use and/or storage of chemicals in the Study Area during our walkover. SME did not observe the use and/or storage of chemicals in the MDOT buildings on the plaza during the walkover. As noted above, SME did not access buildings in the Study Area, so we cannot comment about chemical use and storage contained within the buildings. However, the presence of auto service garages, such as Guizars Auto Company located at 2111 Pine Grove Avenue and CaWood Auto Company located at 2516 Pine Grove Avenue and the presence of an on-site dry cleaner on the southern portion of the Study Area, located at 2037 Pine Grove Avenue, are considered RECs in connection with the Study Area because the businesses presumably store hazardous chemicals.

3.2.2 USTs/ASTs

SME observed evidence of underground storage tank systems (USTs) including fill ports, vent pipes, dispensers, concrete pads, and areas of replaced pavement within the Study Area during our walkover. There were four gas stations located in the northern portion of the Study Area that appeared to have USTs. The gas stations are Marathon Gas Station located at 2621 Pine Grove Avenue, Speedway Gas Station located at 2610 Pine Grove Avenue, Amoco Gas Station located at 2539 Pine Grove Avenue, and USA Mini Mart located at 2432 Pine Grove Avenue, and evidence of USTs in the former London's Dairy parking lot located at 2108 Pine Grove Avenue, and London's Dairy Truck Stop located at 2119 12th Avenue on the southern portion of the Study Area. The presence of USTs located within the Study Area represent RECs. SME noted, a Hazardous Waste Storage Area on the southeastern portion of the existing Plaza, which appeared to have evidence of an UST. According to SME's interview with Mr. Morris Hall the Department Manager of the Blue Water Bridge, the UST system is checked regularly to make sure the valves work and that pressure is in the UST. Mr. Hall further indicated to SME that the UST has not been used.

SME observed three circles approximately 10 feet in diameter, on concrete pads on the western portion of the London's Dairy Building. These circles appeared to be evidence of former aboveground storage tanks (ASTs). However, SME observed no staining on the concrete around the circles. Therefore, SME does not consider the former potential AST locations a REC in connection with the Study Area. SME observed no additional evidence of AST within the Study Area. However, since the buildings were not assessed there is a potential that ASTs were inside the buildings unassessed.

3.2.3 PCB Containing Equipment

SME observed pole-mounted electrical transformers along the roadways and in parking lots, and pad-mounted transformers near many of the commercial buildings and north of the Bridge Plaza within the Study Area. The transformers appeared to be associated with the electrical service and were reported to be owned by Detroit Edison Power Company, which is responsible for maintenance or leakage of the transformers. A Detroit Edison Company, Pine Grove Substation Transit yard, was located north of the Bridge Plaza, which contained electrical equipment and additional transformers. The Substation Transit yard appeared to be present within the Study Area at least since 1948. Based on the age of the station, PCBs were potentially used with the transformers. Therefore, SME recommends that the PCB content of the transformers located within the Study Area be identified if the transformer station, or existing pole and pad-mounted transformers are removed during construction within the Study Area.

3.2.4 Waste Generation, Treatment, Storage, and Disposal

During SME's walkover, SME observed dumpsters located near the commercial buildings. SME observed no visual evidence of the generation, treatment, storage, or disposal of liquid or solid wastes, other than commercial and household wastes within the Study Area.

3.2.5 Other Features

During SME's walkover, SME observed a monitoring well on the north side of Harker Street, along 10th Avenue, below the east side of the Bridge Plaza. However, according to Mr. Morris Hall, the Blue Water Bridge Department Manager, the purpose of the monitoring well was to monitor methane gas that naturally occurs below the ground surface. SME does not consider the monitoring well a REC in connection with the Study Area. Other than the monitoring well, SME noted no other site features that appeared to represent RECs in connection with the Study Area.

Based on the age of the buildings located within the Study Area, asbestos-containing materials and/or lead-containing paint may be present. Sampling for asbestos and lead paint should be completed prior to demolition of the structures.

3.3 Utilities and Drainage

Detroit Edison Power Company reportedly provides electricity within the Study Area. SEMCO Energy reportedly supplies natural gas to the Study Area. Prior to installation of natural gas lines in about 1960, it is presumed that coal was used for heating since a historical coal yard was located on the southern portion of the Study Area. The City of Port Huron reportedly provides municipal water and sewer to the Study Area. SME observed storm drains along the roads and in parking lots

that appeared to be connected to the sanitary sewer throughout the Study Area. SME observed storm drains along the bridge that exited water onto rocks below the bridge. SME did not observe staining or odors on or around the rocks below the bridge. SME does not consider the storm drains on the bridge a REC in connection with the Study Area.

3.4 Surrounding Area

During completion of SME's walkover, SME observed adjoining and surrounding sites from the project boundaries and public right-of-ways for evidence of potential RECs. The walkover did not include physically accessing the adjoining sites. SME was unable to view portions of adjoining sites due to dense vegetation, highway structures, and buildings.

The area surrounding the Study Area consisted predominantly of residential, and commercial land. SME observed a Pennzoil Oil Change site on the north-northwest portion of the Study Area, located at 2624 14th Avenue. The presence of an oil change site represents a REC in connection with the Study Area. The site is identified as #17, on the attached map labeled "**Figure 1**". Based on visual observations, adjoining and surrounding sites, except for the north-northwest adjoining site, did not appear to represent RECs in connection with the proposed alternatives.

3.5 Historical Review

SME conducted a review of the history of use of the sites within the proposed alternatives at intervals defined by ASTM from the present back to the obvious first developed use of the Study Area or back to 1940, whichever was earlier. This information was reviewed from reasonably ascertainable standard sources such as: information that was publicly available; information that was obtainable from its source within reasonable time and cost constraints; and information that was practically reviewable. ASTM requires review of only as many of the standard historical sources as are necessary and both reasonably ascertainable and likely to be useful. Listed below is a description of ASTM standard historical sources reviewed.

3.5.1 Topographic Map

SME reviewed the U.S.G.S. 7.5 minute topographic series Port Huron, Michigan Quadrangle, compiled in 1991, and the U.S.G.S. 7.5 minute topographic series Lakeport, Michigan Quadrangle, compiled in 1961. Eleven structures were depicted scattered in the Study Area and were located predominantly along major roadways.

3.5.2 Aerial Photographs

SME reviewed aerial photographs of the proposed alternatives and surrounding areas, dated 1948, 1958, 1961, 1978, 1986, and 1998 at the MDOT Photo Lab in Lansing, Michigan. Based on review of the historical aerial photographs, the project area appeared to be predominantly commercial north of the Blue Water Bridge Plaza and adjoining the Plaza to the south. The Blue Water Bridge Plaza appeared to have been expanded between the mid 1980s and the mid 1990s. Residential land appeared to be east side, west side, and south side of the Study Area.

3.5.3 Fire Insurance Maps

Sanborn Fire Insurance Maps of the project area were requested through FirstSearch Technology Corporation. SME obtained Sanborn Fire Insurance Maps of some areas included within the Study Area for the years 1911, 1950, and 1967 from the Environmental Data Resources, Inc (EDR) collection. The maps were reviewed to obtain information on past development of the Study Area. SME reviewed coverage of sites located within the south and west sides of the Study Area. It should be noted that most of the Study Area did not have Sanborn Fire Insurance Map coverage.

3.5.4 Local Street Directories

Local street directories are published by public and private sources and show occupancy and/or use of sites by reference to street address.

SME reviewed local Polk, Lesters, and Wolverine street directories for the years 1906, 1909, 1918, 1921, 1926, 1931, 1936, 1937, 1940, 1941, 1946, 1947, 1950, 1951, 1953, 1954, 1963, 1967, 1972, 1977, 1982, 1987, 1992, 1996, and 2001 at the Michigan Library in Lansing, Michigan. It should be noted because of the large amount of addresses, that once a site was listed as a residential name, the site was not further reviewed.

3.5.5 Historical Usage Summary

The sites summarized below represent potential RECs in connection with the Study Area. Historical summaries were not completed for sites which do not indicate RECs.

Site 1: The site located at 2601 13th Avenue on the northern portion of the Study Area, appeared to be residential from at least 1948 until the early 1970s. From the early 1970s until the present, it appeared to be a car wash. This site is currently Buffs Auto Wash. This site is further discussed in Section 3.6.1, and is identified as #1 on the attached **Figure 1**.

Site 2: The site located at 2621 Pine Grove Avenue located on the northern portion of the Study Area, appeared to be residential from at least 1948 until the late 1950s. The site was a parking lot for its north adjoining site from the late 1950s until the late 1960s. The site appeared to be a gas station from the mid to late 1960s to the present. The site is currently Speedway Gas Station. The presence of a gas station located on this site represents a REC in connection with the Study Area. This site is identified as #2 on the attached **Figure 1**.

Site 3: The site located at 2610 Pine Grove Avenue on the northeastern portion of the Study Area, appeared to be a gas station since at least 1926 until the present. An addition was made to the building on this site apparently in the mid 1980s. This site is currently a Marathon Gas Station. The presence of a gas station located on this site represents a REC in connection with the Study Area. This site is identified as #3 on the attached Figure 1.

Site 4: The site located at 2516 Pine Grove Avenue, on the northeastern portion of the Study Area, appeared to be residential from at least 1948 until the late 1950s. From the late 1950s until the present the site was an automobile dealership and garage. The site and the buildings expanded in the late 1970s. The site is currently CaWood Auto Sales. The presence of an auto service garage represents a REC in connection with the Study Area. This site is identified as #4 on the attached **Figure 1**.

Site 5: The site located at 2432 Pine Grove Avenue, on the eastern portion of the Study Area appeared to be residential from at least 1948 until the late 1950s. From the late 1950s until the late 1980s the site appeared to be an auto dealership. From the late 1980s until the present the site appeared to be a gasoline station. The site is currently USA Petroleum Gas Station. The presence of a gas station located on this site represents a REC in connection with the Study Area. This site is identified as #5 on the attached **Figure 1**.

Site 6: The site located at 2402 Pine Grove Avenue, on the eastern portion of the Study Area appeared to be vacant prior to the early 1940s. From the early 1940s to the early 1980s the site appeared to be a gas station under various names. From the early 1980s until the early 1990s the site appeared to be a market place, food store. From the early 1990s until the present, the site appeared to be a vacant building. The historical presence of a gas station located on this site represents a REC in connection with the Study Area. This site is identified as #6 on the attached **Figure 1**.

Site 7: The site located at 1410 Elmwood Street did not appear in aerial photographs or Sanborn Maps. This site was reportedly underneath the former Blue Water Bridge prior to construction of the existing plaza in the mid 1990s. This site is further discussed in Section 3.6. This site is a REC in connection with the Study Area and is identified as #7 on the attached **Figure 1**.

Site 8: The site located at 2308 Pine Grove Avenue appeared to be a gas station from at least 1948 until the mid 1990s when the Blue Water Bridge Plaza was extended. It appears the building on this site was demolished, and the Blue Water Bridge Plaza addition was built on top of the site. This site is further discussed in Section 3.6.1. This site is a REC in connection with the Study Area and is identified as #8 on the attached **Figure 1**.

Site 9: The site located at 2108 Pine Grove Avenue on the southeastern portion of the Study Area appeared to be residential until the early 1960s. From the early 1960s until the late 1970s the site was a gas station. From the late 1970s until the mid 1980s the site appeared to be an addition to London's Dairy, which is it's north adjoining site. The historical presence of a gas station located on this site represents a REC in connection with the Study Area. This site is identified as #9 on the attached **Figure 1**.

Site 10: The site located at 2111 Pine Grove Avenue located on the southern portion of the Study Area appeared to be vacant prior to the mid 1930s. From the mid-1930s until the early 1960s the site appeared to be an auto dealership and service garage from the early 1960s until the present. The site also had an address under 2107 Pine Grove Avenue. This site is currently Guizar's Auto Company. The presence of an auto service garage represents a REC in connection with the Study Area. This site is identified as #10 on the attached **Figure 1**.

Site 11: The site formerly located at 2201 Pine Grove Avenue on the southwestern portion of the Study Area appeared to be vacant prior to 1918. From 1918 until the late 1960s the site appeared to be used as a coal storage and distributing facility. A railroad spur appeared on the site in the 1948, 1958, and 1961 aerial photographs, and is also observed in the Sanborn Fire Insurance Maps. From the late 1960s until the mid 1990s the site had one rectangular building

with an associated parking lot. The aerial photographs for the years 1978 and 1986 appeared to have dark colored soil on the northwestern portion of the site with vehicle tracks leading to the colored soil. It appears the building on this site was demolished, and the Blue Water Bridge Plaza addition was built on top of the site. The presence of a railroad spur and a coal yard represent a REC in connection with the Study Area. This site is identified as #11 on the attached **Figure 1**.

Site 12: The site located at 2119 12th Avenue located on the southwestern portion of the Study Area appeared to be vacant agricultural land prior to the early 1950s. From the early 1950s until the 2001, the Site was used as the London's Dairy Truck Stop. A pump island appeared in the 1998 aerial photograph located in the central portion of the site. The building on this site is reportedly vacant. This site is further discussed in Sections 3.2.2 and 3.6.1. This site is considered a REC based on the existing UST in the central portion of the site. This site is identified as #12 on the attached **Figure 1**.

Site 13: The site located at 1508 Elmwood Street located on the western portion of the Study Area, appeared to be Detroit Edison Company, Pine Grove Substation Transit yard from at least 1948 until the present. Based on the age of the Substation Transit yard, PCBs potentially exist in the transformers. Therefore, SME recommends that the PCB content within the transformers be checked prior to demolition of the site, if deemed necessary. This site is identified as #13 on the attached **Figure 1**.

Site 14: The site formerly located at 2401 Pine Grove Avenue, located in the central portion of the Study Area appeared to be vacant land prior to 1953. From 1953 until the late 1980s, it was a gas station with various names throughout the years. From the late 1980s, until the present the site was vacant with a sidewalk and the beginning of the on-ramp to the Blue Water Bridge located on the site. The historical presence of a gas station located on this site represents a REC in connection with the Study Area. This site is identified as #14 on the attached **Figure 1**.

Site 15: The site located at 2425, 2445, 2447, and 2505 Pine Grove Avenue, located in the central portion of the Study Area appeared to be a machine shop from at least 1911 until the late 1940s. A railroad spur appeared to lead to the building from at least 1911 until the 1970s. There appeared to be exterior storage and soil mounds on the western portion of the site from the late 1950s until the late 1980s. There appeared to be three different businesses at this site from the late 1940s until the mid 1990s. From the late 1940s until the early 1980s, the site appeared to be also used for general contracting. From the early 1980s until the early 1990s part of the site also appeared to be a florist shop. From the early 1950s until the late 1970s, the northern portion of the site appeared to be used for sheet metal contracting. From the late 1970s until the early 1990s the northern portion of the site appeared to be used for commercial sales. From the early 1990s until the present the site is Can-Am Duty Free Store, and the southern portion of the site is the on-ramp to the Blue Water Bridge. The historical presence of: an auto parts manufacturing facility; sheet metal contracting; a railroad spur; exterior storage and soil mounds; and a current UST located on this site represent RECs in connection with the Study Area. These sites are identified as #15 on the attached **Figure 1**.

Site 16: The site located at 2539 Pine Grove Avenue, located on the northern portion of the Study Area appeared to be vacant agricultural land prior to 1950. From 1950 until the mid 1950s, the site appeared to be a fruit market. From the mid 1950s until the early 1960s the site appeared to be an auto dealership. From the early 1960s until the present the site appeared to be a gasoline station. The site is currently an Amoco Gas Station. The presence of a gas station located on this site represents a REC in connection with the Study Area. This site is identified as #16 on the attached **Figure 1**.

Site 17: The site located at 2624 14th Avenue, which is on the north-northwest portion of the Study Area, appeared to be a residential structure from 1948 until the mid 1960s. The site appeared vacant from the mid 1960s until the mid 1980s. From the mid 1980s to the present the site appeared to be Bufts Pennzoil Ten Minute Oil Change. Based on the presence of an oil change facility, SME considers this site a REC in connection with the Study Area. This site is identified as #17 on the attached **Figure 1**.

Site 18: The site located at 2037 Pine Grove Avenue, which is located on the southern portion of the Study Area appeared to be vacant prior to 1940. From 1940 until the early 1960s this site appeared to be a gas station. From the early 1960s until the present, the site appeared to be a one-hour, on-site, dry cleaner. The presence of an on-site dry cleaner and historical presence of a gas station represents a REC in connection with the Study Area. This site is identified as #18 on the attached **Figure 1**.

The site located at 2136 Pine Grove Avenue, on the southeastern portion of the Study Area appeared to be vacant prior to the late 1930s, when it became an industrial dairy production facility from the late 1930s until 2001. The building on the site is reportedly vacant. SME observed two ASTs in the 1978 aerial photograph, three ASTs in the 1986 aerial photograph and five ASTs in the 1998 aerial photograph located on the western portion of the site. SME observed the area of the ASTs during the Study Area walkover. Based on our observations, SME does not consider the London's Dairy Building a REC in connection with the Study Area.

The site located at 2509 Pine Grove Avenue located on the northern portion of the Study Area appeared to be vacant agricultural land prior to the early 1950s. From the early 1950s until the late 1960s the site was an auto dealership. From the late 1960s until the present the site appeared to be a fast food restaurant. This site is currently McDonalds. SME observed no indication of an auto service garage at this site, and no indication of USTs currently at this site; SME does not consider this site a REC in connection with the Study Area.

3.6 Regulatory Review And Interviews

3.6.1 Standard Environmental Record Sources

The following state and federal regulatory agency lists were reviewed to identify regulated and/or environmentally impacted sites within the proposed alternatives. Sites found on these lists are identified in the table at the end of this section.

- **MDEQ – Remediation and Redevelopment Division (RRD), Michigan Act 451 Part 201 Sites of Environmental Contamination, reviewed October 7, 2002; 1-mile radius. (Part 201 Contaminated Site)**

- MDEQ – RRD, Open and Closed Leaking Underground Storage Tank (LUST) Sites, October 2002; 1/2-mile radius. (Open LUST/Closed LUST)
- MDEQ – Waste and Hazardous Materials Division (WHMD), Registered USTs, October 2002; Study Area and adjoining sites. (Registered UST)
- MDEQ - WHMD, Operating Solid Waste Landfills in Michigan listing dated June 4, 2002, Solid Waste Disposal Areas in Michigan listing dated January 2, 2002, and the Inactive Landfill listing dated April 1998; 1/2-mile radius. (Landfill)
- United States Environmental Protection Agency (USEPA) Superfund Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Hazardous Waste Sites, October 2, 2002; 1/2-mile radius. (CERCLIS)
- USEPA Superfund CERCLIS Archive No Further Remedial Action Planned (NFRAP) sites, October 1, 2002; Study Area and adjoining sites. (CERCLIS-NFRAP)
- USEPA Superfund NPL listing, September 5, 2002; 1-mile radius. (NPL)
- USEPA Federal Resource Conservation and Recovery Act of 1976 (RCRA) Large Quantity Generators (LQG) and Small Quantity Generators (SQG) List for Michigan, September 26, 2002; Study Area and adjoining sites. (RCRA-SQG / RCRA-LQG)
- USEPA RCRA Treatment Storage and Disposal (TSD) Facilities List, September 26, 2002; 1/2-mile radius. (RCRA-TSD)
- Federal Resource Conservation and Recovery Information System (RCRIS) Corrective Action (CORRACTS) Facilities List, September 26, 2002; 1-mile radius. (CORRACTS)
- USEPA Emergency Response Notification System (ERNS) List, September 29, 2002; Study Area only. (ERNS)

Table 3.1 Table of Identified Sites within the Study Area

Site Name	Site Number	Address	Name of List
Bufs Car Wash , (formerly Star Location 1268)	1	2601 13 th Avenue	Open LUST, Closed UST
Speedway #8825	2	2621 Pine Grove Avenue	Closed LUST, Active UST
Speedway #7721 (Marathon Gas Station)	3	2610 Pine Grove Avenue	Closed LUST, Active UST
CaWood Auto Company	4	2516 Pine Grove Avenue	Closed LUST, RCRA, Closed UST
USA Mini Mart #315	5	2432 Pine Grove Avenue	Active UST
Blue Water Bridge	7	1410 Elmwood Street	Open LUST,

Maintenance Garage			Closed LUST, RCRA, Closed UST
Bakers Dozen / Can Am 5027	8	2308 Pine Grove Avenue	Open LUST, Closed UST
London's Dairy, Inc.	12	2119 12 th Avenue	Closed LUST, Active UST
United 4006 Tulsa Oil Corporation	14	2401 Pine Grove Avenue	Closed UST
World Duty Free	15	2425 Pine Grove Avenue	Active UST
Amoco Oil Company (Express Food Depot – Bridge Side)	16	2539 Pine Grove Avenue	Closed LUST, RCRA, Active UST

SME reviewed information regarding the listed sites located within the Study Area at the Southeast Michigan MDEQ-RRD on October 29, 2002. Below is a summary of the information regarding these sites on file with the MDEQ.

Bufs Car Wash, 2601 13th Avenue: This site reportedly had five USTs that were removed and taken to a Type II landfill. A majority of the site has reportedly been remediated and the impacted soil was disposed of at a Type II landfill. However, the site appeared to still have impacted soil on the eastern portion of the site extending beneath 13th Avenue and along the western wall beneath the utility areas and building foundation. Based on the information reviewed, this site represents a REC in connection with the Study Area. This site is identified as #1 on the attached **Figure 1**.

Speedway #8825, 2621 Pine Grove Avenue: This site is located on the northern portion of the Study Area. There are currently five USTs on the site, and there were historical USTs on the site also. Based on a Closure Report dated May 25, 2000 a release of petroleum products was identified on the site, and was presumed to be from an historical leak and not from the current USTs. The constituents consisted of BTEX, trimethylbenzenes, and PNAs. Groundwater was presumed to be approximately 4 feet below ground surface, and was indicated to be perched groundwater flowing in the south-southeast direction. Impacted groundwater was identified in five of the six monitoring wells located around the site. Therefore, this site is considered a REC in connection with the Study Area. This site is also discussed in Sections 3.2.2 and 3.5.5, and is identified as #2 on the attached **Figure 1**.

CaWood Auto Company, 2516 Pine Grove Avenue: This site appeared to have five USTs removed, and verification of soil remediation was conducted on October 25, 1990. According to the Closure Report by Eneco Tech, August 8, 1991, the excavation did not appear to have staining or discoloration. Approximately 120 cubic yards of soil was removed from the site. Groundwater from the excavation was removed by a vacuum truck. Based on the information reviewed, the impacted soil has been remediated. However, this site is currently an operating service station, which is further discussed in Sections 3.2.1, 3.2.3 and 3.5.5. The hydraulic lifts and potential hazardous chemicals at the site represent RECs in connection with the Study Area. This site is identified as #4 on the attached **Figure 1**.

Blue Water Bridge Maintenance Garage, 1410 Elmwood: This site reportedly had a release in 1991 and one in 1993. Based on the information reviewed, impacted soil was observed in 1991 due to releases from two 2,000-gallon USTs located on the northern portion of the site, which contained gasoline and diesel fuel. In 1993 a release was observed from a 1,000-gallon gasoline tank located in the central portion of the site. The release in 1991 reportedly was not completely remediated. The release identified in 1993 reportedly was remediated. Due to the presence of impacted soil along the southern portion of the site, SME considers this site a REC in connection with the Study Area. This site is also discussed in Section 3.6.3, and is identified as #7 on the attached **Figure 1**.

Bakers Dozen / Can Am 5027, 2308 Pine Grove Avenue: This site reportedly had five USTs removed, and approximately 13,000 cubic yards of soil excavated and disposed of at a Type II landfill. There appeared to still be impacted soil along the western portion of the site extending beyond Pine Grove Avenue. Based on the information reviewed, this site represents a REC in connection with the Study Area. This site was previously discussed in Section 3.5.5. This site is identified as #8 on the attached **Figure 1**.

London's Dairy, 2119 12th Street: This site reportedly had two USTs located on the on the western portion of the site. One of the USTs was a 500-gallon waste oil UST and the other was a 12,000-gallon gasoline UST. The contaminated soil was reportedly removed along with the USTs. There were reportedly impacted soils remaining on the east wall of the waste oil excavation. No contamination was identified based on analytical verification samples for the gasoline UST excavation. There is currently an active UST, which is further discussed in Section 3.2.2. Based on the indication of impacted soil along the east wall of the waste oil UST and an active UST in the central portion of the site, this site is considered a REC in connection with the Study Area. This site is identified as #12 on the attached **Figure 1**.

Amoco Oil Company, 2539 Pine Grove Avenue: This site appeared to formerly have gasoline, waste oil and fuel oil USTs. The soil was impacted by benzene, toluene, ethylbenzene, xylenes (BTEX), and polyaromatic hydrocarbons (PNAs). Groundwater was encountered approximately four to five feet below ground surface. According to a Closure Report, dated September 26, 1996, 315 cubic yards of impacted soil were removed from the site. According to the Closure Report, this site was remediated in regards to the former tanks on the site. However, this site is currently an operating gas station, which was previously discussed in section 3.2.2, and 3.5.5 of this report. This site is a REC in connection with the Study Area, and is identified as #16 on the attached **Figure 1**.

SME considered the three UST sites and a Closed LUST site: Speedway #7721 (Marathon Gas Station) located at 2610 Pine Grove Avenue; USA Mini Mart #315 located at 2432 Pine Grove Avenue; United 4006 Tulsa Oil Corporation located at 2401 Pine Grove Avenue; and World Duty Free located at 2425 Pine Grove Avenue RECs in connection with the Study Area because of the presence of USTs at the sites. Even though it appears that United 4006 Tulsa Oil Corporation has had the USTs at this site removed, based on the information from the MDEQ-WHMD website, indicating no release was reported, there was no record of verification sampling completed at this site. Therefore it represents a REC in connection with the Study Area. These sites are identified as #3, #5, #14, and #15 respectively on the attached **Figure 1**.

Sites within the reviewed radii and their distance from the Study Area are listed below:

Table 3.2 Table of Radius Sites

Site Name and Address	Distance and Direction from Study Area	Name of List
Shell Port Huron #3 2014 Pine Grove Avenue	1/6 mile south-southeast	Open LUST
Clark #635 1912 Pine Grove Avenue	1/4 mile southeast	Open LUST
Shell Port Huron #2 2856 Pine Grove Avenue	1/4 mile northwest	Open LUST
Barbru Grocery 2738 Gratiot Avenue	1/3 mile northeast	Open LUST
Acheson Colloids 1600 Washington Avenue	1/2 mile southeast	Part 201 Contaminated Site
City of Port Huron WTP 915 Whipple Street	1/2 mile southeast	Open LUST

SME did not review files for the above listed sites because they were not reasonably ascertainable within time constraints and budget constraints of the project. Based on the above listed sites, and the location of Lake Huron to the northeast and the Black River to the west, the above listed sites do not represent RECs in connection with the Study Area.

3.6.2 MDOT Department Manager of the Blue Water Bridge Interview

On December 9, 2002, SME contacted Mr. Morris Hall, the Department Manager of the Blue Water Bridge, via telephone and asked about the status of the 30,000-gallon UST in the hazardous waste area on the Plaza. Mr. Hall indicated that the UST has not been used and that the purpose of the UST is in case of an emergency with one of the tanker trucks. He informed SME that the valves and diaphragms are checked regularly to ensure that there is pressure inside the UST and that the valves are working correctly. Based on the interview with Mr. Hall, SME does not consider the 30,000-gallon UST located on the southeastern portion of the Blue Water Bridge Plaza a REC in connection with the Study Area.

3.6.3 MDOT Official Interview

On September 19, 2002, SME met with Mr. Mike Anglebrandt, Environmental Quality Specialist in the Real Estate Division of MDOT and discussed the Study Area with him. Based on our conversations and Memorandums Mr. Anglebrandt supplied to SME, tanks were removed from the former gas station in London's Dairy's parking lot. Based on the information provided to SME, testing results from the UST removal indicated that there is minimal risk to MDOT if the former London's Dairy site is purchased. However, based on the information, there may be soil contamination of the site. Testing results were not provided to SME, and therefore the site is considered a REC in connection with the Study Area. This site is identified as #9 on the attached **Figure 1**.

On September 24, 2002, SME met with Mr. Jim Woodruff, Mel Simpson and Steve Adams of MDOT and discussed with them the work they performed at the Blue Water Bridge Plaza. Based on our interview, they indicated there was a former ammunition facility in the area of the current Can/AM building during World War II. This is identified as #15 on the attached **Figure 1**. They also indicated that the former maintenance garage had hydraulic hoists and salt storage. This area is identified as #7 on the attached **Figure 1**. The presence of the former ammunition facility and the hydraulic hoists located within the Study Area represent RECs.

3.6.4 MDEQ Geological Survey Division Interview

SME reviewed the MDEQ-Geological and Land Management Division (GLMD) web site for oil and gas permits/wells for the Study Area's township, range and section number. According to the lists reviewed, dated October 8, 2002, there are no known oil and/or gas well permits recorded for the Study Area's Section number.

3.7 Conclusions

SME has performed a Hazardous Waste Contamination Survey of the approximately 2-mile long Study Area located in the City of Port Huron, St. Clair County, Michigan, in general conformance with the scope and limitations of SME's Scope of Services and the ASTM Standard Practice E 1527-00.

Based on the results of the Hazardous Waste Contamination Survey of the Study Area, in SME's opinion the following RECs were identified in connection with the proposed alternatives:

- USTs from historical and current gas stations or truck stops located within the Study Area;
- Service garages within the Study area that use or formerly used hydraulic hoists;
- on-site dry cleaners and former gas station on the southern portion of the Study Area;
- Possible PCB-containing transformers;
- Area of disturbed soil, soil piles and exterior storage identified in historical aerial photographs;
- Former coal distributing facility;
- Asbestos and lead paint in buildings;
- North-northwest adjoining oil change site.

3.8 Recommendations

In the professional opinion of SME, a Phase II subsurface assessment for the sites numbered on the attached **Figure 1** to determine the amount of contaminated soils within the Study Area prior to construction of the Blue Water Bridge Plaza expansion.

SME also recommends sampling for asbestos and lead paint prior to demolition of structures within the Study Area.

